

AJISS-Commentary

The Association of Japanese Institutes of Strategic Studies

NPI

Nakasone Yasuhiro
Peace Institute

JIIA

The Japan Institute of
International Affairs

RIPS

Research Institute for
Peace and Security

Editorial Advisory Board:

Akio Watanabe (Chair)
Masashi Nishihara
Kenichiro Sasae
Taizo Yakushiji

Editorial Committee:

Taizo Yakushiji
Tutomu Kikuchi
Tsuyoshi Sunohara
Shujiro Urata and
Yasunori Nakayama

Editor & Online Publisher:

Kenichiro Sasae
President, JIIA

No. 269

15 May 2019

THE NEW US-CHINA COLD WAR STRUCTURE FROM A TECHNO-GEOPOLITICAL PERSPECTIVE

Atsushi Sunami

- Aiming to secure “technological superiority”, major countries are engaged in an intense struggle to construct innovation systems in order to acquire core technologies.
- There is a new battle for hegemony over cutting-edge technologies between a rising China, which has been extending its scientific and technological capabilities with tremendous momentum, and a wary US.
- Japan stands at a critical juncture, needing to pursue Japan-US relations from a new perspective while actively engaging in science and technology diplomacy to survive this battle for hegemony over core technologies.

The views expressed in this piece are the author's own and should not be attributed to The Association of Japanese Institutes of Strategic Studies.

The security environment surrounding Japan has changed greatly due to the IT-driven Fourth Industrial Revolution and the dramatic progress and globalization of ICT (artificial intelligence (AI), Big Data, etc.) and of science/technology as a whole. In recent years, the cyber, space and maritime domains have been most conspicuously impacted by dual-use technology designed to serve both security and civilian purposes, and the battle for hegemony among major countries, and even emerging countries, is intensifying. Because securing “technological superiority” in the sense of developing and acquiring such technologies will enable countries to wield significant influence in building a new order for the international community, major powers are devoting themselves single-mindedly to the competition to construct innovation systems in order to acquire these core technologies.

Since the mid-20th century, it has been the US that has placed the greatest emphasis on gaining technological superiority. The US is currently pursuing the “Third Offset Strategy” begun under the Obama administration, at the same time bolstering spin-ons that incorporate civilian technology into security applications and endeavoring to make the US itself part of the innovation ecosystem. The security strategy that the Trump administration has put forth specifically names China, Russia and Iran and calls for taking all steps necessary to ensure these countries do not become greater threats to the US. The rise of China is cited as the greatest cause for concern, and the US sees a battle for hegemony over cutting-edge technologies as an inevitable outcome.

Under the firm leadership of a powerful national leader since the PRC was founded, China has been steadily driving scientific and technological innovation by undertaking consistent policies from a long-term perspective and focusing on the development of core technologies. The Xi Jinping administration has adopted a policy of realizing “the Chinese Dream” of becoming a major scientific and technological power leading the world by steadily proceeding down the path of self-reliant innovation and extending this to the broader “Belt and Road” economic zone, and has sought to transform its “Made in China 2025” program, aimed at giving China the lead in all technological fields, into a driving force for new economic growth that will help bring about the Chinese Dream as

the country's centennial in 2049 approaches. Should China successfully emerge on top of the world's future manufacturing powers, it will have immeasurable influence as the central country in an enormous economic zone built around the Belt and Road.

Japan-US relations need to be advanced from a new perspective in response to these rapid structural changes in the international community. Japan and the US jointly developing core technologies like AI, quantum computing and cryptography and constructing a shared platform, for example, would help bring alliance relations to an unprecedented level of closeness. There are several Track 1.5 dialogues among the experts from these two countries being created as an initial step to facilitate exchanges. This would require sharing a foundational information structure, and consideration should also be given to the possibility of Japan joining the "Five Eyes" intelligence network comprising Australia, Canada, New Zealand, the UK and the US.

As a neighbor of the economic powerhouse China in a new age built on Big Data, Japan now stands at a critical juncture in determining how to survive the coming battle for hegemony over core technologies, and it must actively pursue science and technology diplomacy with not just the US but with all the members of the Five Eyes to ensure closer collaboration than ever before. Given that it is part of Asia, Japan must also stake out a direction for its interactions with China, India and other major science and technology powers in Asia from a big-picture perspective. 

Atsushi Sunami is Executive Advisor to the President at the National Graduate Institute for Policy Studies (GRIPS).